



SEQUENCE LISTING

<118> Du, De-Chao
Zhang, Hong
Henderson, Daniel R.

<120> HUMAN UROTHELIAL CELL SPECIFIC UROPLAKIN
TRANSCRIPTIONAL REGULATORY SEQUENCES, VECTORS COMPRISING
UROPLAKIN-SPECIFIC TRANSCRIPTIONAL REGULATORY SEQUENCES, AND
METHODS OF USE THEREOF

<130> 348022001500

<140> 09/814,292

<141> 2001-03-21

<150> 60/191,861

<151> 2000-03-24

<160> 46

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 2240

<212> DNA

<213> Artificial Sequence

<220>

<223> Human uroplakin II 5' flanking region

<400> 1

tcgataggtg	cccactatag	ggcacgcgtg	gtcgacggcc	cgggctggtc	tggcaacttc	60
aagtgtgggc	ctttcagacc	ggcatcatca	gtgttacggg	gaagtcacta	ggaatgcaga	120
attgattgag	cacggtggct	cacacctgta	atcccaacac	tctgggaggc	caaggcaggt	180
ggatcacttg	tggtcaggag	tttgagacca	gcctggccaa	catggtgaaa	cctcatctct	240
actaaaaata	caaaaattag	ctgggaatgg	tggcacatgc	ctataatccc	agttactcag	300
gaggtcgagg	caggagaatc	at ttgaacct	gggaggcaga	ggttgcagtg	agccgagatc	360
acgccactgc	actccagcct	gggtgacaca	gcgagactct	gtctcaaaaa	aaaaaaaaatg	420
cagaatttca	ggcttcaccc	cagaccact	gcctgactgc	atgagaagct	gcctcttaac	480
aagatccctg	gtaattcata	cgcataattaa	atttggagat	gcactggcgt	aagaccctcc	540
tactctctgc	ttaggcccat	gagttcttcc	tttactgtca	ttctccactc	accccaaact	600
ttgagcctac	ccttcccacc	ttggcggtaa	ggacacaacc	tcctcacat	tcctaccagg	660
accctaagct	tcctgggac	tgaggaagat	agaatagttc	gtggagcaaa	cagatatata	720
gcaacagctc	ctgtacagct	ctcaggcttc	tgggaagtct	acagcctctc	ccgacaaagt	780
attccacttt	ccacaagtaa	ctctatgtgt	ctgagtctca	gtttccactt	ttctctctct	840
ctctctctct	caactttctg	agacagagtt	tcacttagtc	gccaggctg	gagtgcaggg	900
gcacaatctc	ggctcactgc	aacctccacc	tcctgggttc	aagtgtttct	cctgtctcag	960
cctcccaggt	agctgggatt	acaggcacac	accaccgcgt	tagtttttgt	atttttggtg	1020
gagatgggtg	ttcgccatat	tggccaggct	gatctcgaac	tcctgacctc	aggtgatccg	1080
cccacctcgg	cctcccaaag	tgctgggatt	acaggcatga	gccaccacgc	ccggctgatc	1140
tcttttctat	tttaatatag	atcaaaactc	ctgtgttgcc	taggctggtc	ttgaactcct	1200
ggcctcgagt	gacctcccca	ccttggcctc	ccaaagtgtt	gagattacag	gcctgagcca	1260
ctgtgcctgg	cctcagttct	actacaaaag	gaagccagta	ccagctacca	cccagggtgg	1320
ctgtagggct	acaatggagc	acacagaacc	cctaccagg	gcccggaaga	agccccgact	1380

cctctcccct	ccctctgccc	agaactcctc	cgcttctttc	tgatgtagcc	cagggccgga	1440
ggaggcagtc	agggaaagtcc	tgtctctttt	tcattgttatc	ttacgaggtc	tctttttctcc	1500
attctcagtc	caacaaatgg	ttgctgccc	aggtgactg	tgcccacccc	caacccttgc	1560
tgccaggggt	caatgtctgt	ctctctggtc	tctccagaag	tcttccatgg	ccaccttctg	1620
ccccaccctc	cagaggaatc	tgaaccgca	tgtgtctcct	ggccccaca	gcccctgcct	1680
ctcccagagc	agcagtacct	aagcctcagt	gcactccaag	aattgaaacc	ctcagttctgc	1740
tgccccctccc	caccagaatg	tttctctccc	attcttacct	actcaaggcc	ctttcagtag	1800
ccccttggag	tattctcttc	ctacatatca	gggcaacttc	caaactcatc	acccttctga	1860
ggggtggggg	aaagaccccc	accacatcgg	gggagcagtc	ctccaaggac	tggccagttc	1920
ccagatgccc	gtgcacacag	gaacactgcc	ttatgcacgg	gagtcaccaga	agaaggggtg	1980
atttctttcc	ccaccttagt	tacaccatca	agaccagacc	agggcatccc	ccctcctggc	2040
ctgagggcca	gctccccatc	ctgaaaaacc	tgtctgtctc	ccccaccctt	ttgaggctat	2100
agggcccaag	gggcaggttg	gactggattc	ccctccagcc	cctcccgcgc	ccaggacaaa	2160
atcagccacc	ccaggggcag	ggcctcactt	gcctcaggaa	ccccagcctg	ccagcaccta	2220
ttccacctcc	cagcccagca					2240

<210> 2

<211> 3592

<212> DNA

<213> Artificial Sequence

<220>

<223> Mouse uroplakin II 5' flanking region

<400> 2

ctcaggagtc	tgggccctct	ttctgcatcc	ttgtcctaaa	tcattttcat	atcttgctag	60
acctcagttt	gagagaaacg	aacctttctca	ttttcaagtt	gaaaaaaaaa	agaggttcaa	120
agtggctcac	tcaaagttac	aagccaacac	tcaccactac	gagtacaatg	gccaccatta	180
gtgctggcat	gccccaggag	acaggcatgc	atattattct	agatgactgg	gaggcagagg	240
ggtggcctag	tgaggtcaga	ctgtggacag	atcaggcaga	tgtgggttct	gatcccaatt	300
ctcaggcccg	cagaactact	gtggttcaag	aaggggacaa	aaggactgca	gtccggaaca	360
ggaggtccat	ttgagagctg	actgagcaga	agaggaaagt	gaagaacttc	tggggcaaga	420
gcttacccta	ctttacagct	ttgttgtctt	ctttactcca	ggggcgctcc	tgggtactcag	480
taaatgtctg	ttggcttgag	gaacatatgt	gtaaggagga	aggagaggga	acttgaggga	540
gttaagactc	aagaatcaat	caaggagagg	acagcagaga	agacaggggt	tgggagagag	600
actccagaca	ttggccctgg	ttcccttctt	ggccactgtg	aaaccttcca	gaggaaactga	660
gtgctgtggc	tttaaatgat	ctcagcactg	tcagtgaagc	gctctgtctc	aagagttatc	720
ctcttgctcc	tgtgcggggg	cctcccctc	ctctcagctc	ccaaaccttt	ctcagccact	780
gtgatggcat	aattagatgc	gagagctcag	accgtcagg	ctgctccagg	aaccacctat	840
tttccccaac	cccagagaaa	ggctcctagt	gaaaagtggg	ggccactgaa	gggctgatgg	900
ggtttctgtc	tttcccccat	gctgggtgga	cttaaaagt	gcgatgtgtg	tagggggtag	960
aagacaacag	aacctggggg	ctccggctgg	gagcaggagg	aactctcacc	agacgatctc	1020
caaattttact	gtgcaatgga	cgatcaggaa	actggttcag	atgtagcttc	tgatacagtg	1080
ggtctgaggt	aaaacccgaa	acttaatttc	tttcaaaaat	ttaaagttgc	atttattatt	1140
ttatatgtgt	gcccataatg	gtgccacagt	gtctatgtgg	aggtcagagg	gcaagttgtg	1200
ggcattggct	ctctcctttc	ataatgtggc	ttctggggac	caaaatgtca	ggcatggtgg	1260
caagagcttt	tacctgttga	gccatctcat	ggtttcgtaa	aacttccctat	gacgcttaca	1320
ggtaacgcag	agacacagac	tcacatttgg	agttagcaga	tgctgtattg	gtgtaaacac	1380
tcatacacag	acacacacac	atactcatac	acacacacac	acacttatca	catgcacaca	1440
catactcgta	tacacacaga	cacacacaca	tgcactctca	cattcacata	ttcatacaca	1500
tcacacacac	cactcatcca	cacacacaga	cacacatact	catccacaca	cacacacaca	1560
catactcata	cacacacaca	gacacacata	ctcatacaca	cacacagaca	cacacatata	1620
atcacacata	cacagacaca	ctcatacatg	tgacacacac	cactcatcca	cacacacaca	1680
ctcacacaca	cacacactca	tacacacaca	cactcataca	cacacacacg	aggtttttct	1740
caggctgcct	ttgggtggag	actggaactg	atttctgttt	ttcagctcct	tggctttttg	1800
tccttttaga	tgagatctcc	tcctcacttt	acacacagaa	agatcacaca	cgaggagaaa	1860
ctggcggtgc	ggaagagggc	tacacggtag	ggtgtcaggg	tcaggagatc	ttcctggcaa	1920

gtctcaaacc tccacatagc acagtgttta cgtgaggatt taggaggaat caggaagagg 1980
attggtttac tgcagagcag accatatagg tccactccta agccccattt gaaattagaa 2040
gtgagacagt gtgggataaa aagagcagat ctctggtcac atttttaag ggatatgagg 2100
gtcctgtgcc tttaagcctt cccatctccc tccaatcccc cctcaccttc cccaccctaa 2160
ccctccccag gtttctggag gagcagagtt gcgtcttctc cctgccctgc cgagctgctc 2220
actggctgct ctagaggctg tgctttgcgg tctccatgga aaccattagt tgctaagcaa 2280
ctggagcatc atctgtgctg agctcaggtc ctatcgagtt cacctagctg agacaccac 2340
gcccctgcag ccactttgca gtgacaagcc tgagtctcag gttctgcatc tataaaaaacg 2400
agtagccttt caggaggcca tgcagagccc cctggccagc gtctagagga gaggtgactg 2460
agtggggcca tgtactcgt ccattggctg agaacctcca tcagtctccc agttagcctg 2520
gggcaggaga gaaccagagg agctgtggct gctgattgga tgatttacgt acccaatctg 2580
ttgtcccagg catcgaaccc cagagcgacc tgcacacatg ccaccgctgc cccgccctcc 2640
acctcctctg ctctctggtta caggattgtt ttgtcttgaa gggttttgtt gttgctactt 2700
tttgctttgt tttttctttt ttaacataag gtttctctgt gtagccctag ctgtcctgga 2760
actcactctg tagaccaggc tggcctcaaa ctcaaaaac caccctcctc ccaagtgtctg 2820
ggattaaagg cattcgcacc atcgcccagc ccccggtctt gtttcctaag gttttcctgc 2880
tttactcgtc acccggtgca caaccgctg ctgtccaagt ctgtttgtat ctactccacc 2940
gcccactgac cttgctggac tggacctacg tttacctgga agccttcact aacttcctt 3000
gtctccacct tctggagaaa tctgaaggct cacactgata cctccgctt ctcccagagt 3060
cgcagtttct taggcctcag ttaaatacca gaattggatc tcaggctctg ctatccccac 3120
cctacctaac caacccctc ctctcccatc ctactagcc aaagccctt caacccttg 3180
ggcttttctt acacctacac accagggcaa ttttagaact catggctctc ctagaaaaacg 3240
cctacctcct tggagactga cctctacag tccaggaggc agacactcag acagaggaac 3300
tctgtccttc agtcgcggga gttccagaaa gagccatact cccctgcaga gctaactaag 3360
ctgccaggac ccagccagag catccccctt tagccgaggc ccagctccc agaataaaaa 3420
acctgtctgg ggcctctccc tgaggctaca gtcgccaagg ggcaagttgg actggattcc 3480
cagcagcccc tcccactccg agacaaaatc agctaccctg gggcaggcct cattggcccc 3540
aggaaacccc agcctgtcag cacctgttcc aggatccagt cccagcgcag ta 3592

<210> 3
<211> 307
<212> DNA
<213> Artificial Sequence

<220>
<223> Nucleotide sequence for ADP

<400> 3
gatgaccggc tcaaccatcg cgcccacaac ggactatcgc aacaccactg ctaccggact 60
aacatctgcc ctaaatttac cccaagttca tgccttggc aatgactggg cgagcttggg 120
catgtggtgg ttttccatag cgcttatgtt tgtttgcctt attattatgt ggcttatttg 180
ttgcctaaag cgcagacgcg ccagaccccc catctatagg cctatcattg tgctcaaccc 240
acacaatgaa aaaattcata gattggacgg tctgaaacca tgttctcttc ttttacagta 300
tgattaa 360

<210> 4
<211> 101
<212> PRT
<213> Artificial Sequence

<220>
<223> Amino acid sequence for ADP

<400> 4
Met Thr Gly Ser Thr Ile Ala Pro Thr Thr Asp Tyr Arg Asn Thr Thr
1 5 10 15
Ala Thr Gly Leu Thr Ser Ala Leu Asn Leu Pro Gln Val His Ala Phe

20 25 30
 Val Asn Asp Trp Ala Ser Leu Asp Met Trp Trp Phe Ser Ile Ala Leu
 35 40 45
 Met Phe Val Cys Leu Ile Ile Met Trp Leu Ile Cys Cys Leu Lys Arg
 50 55 60
 Arg Arg Ala Arg Pro Pro Ile Tyr Arg Pro Ile Ile Val Leu Asn Pro
 65 70 75 80
 His Asn Glu Lys Ile His Arg Leu Asp Gly Leu Lys Pro Cys Ser Leu
 85 90 95
 Leu Leu Gln Tyr Asp
 100

<210> 5
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR Primer 66.119.1

<400> 5
 accggtctcg aggatctcgg cctcttttc

29

<210> 6
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR Primer 66.119.2

<400> 6
 accggtactg cgctgggact ggatcc

26

<210> 7
 <211> 34
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR Primer 100.24.1

<400> 7
 aagcttaccg gtactgcgct gggactggat cctg

34

<210> 8
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR Primer 100.27.1

<400> 8
 accatggacc ggtctcgagg atctcgccc tctttc

36

<210> 9

<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 100.24.3

<400> 9
accatggacc ggtacgtacc caatctgttg tcccag

36

<210> 10
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 100.24.2

<400> 10
accatggacc ggtcactagc cttgctggac tggac

35

<210> 11
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 100.84.1

<400> 11
aagaatcagg atcaaggga agtc

24

<210> 12
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 100.84.2

<400> 12
aatgctgggc tgggaggtgg aatag

25

<210> 13
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 100.113.1

<400> 13
aggggtaccc actatagggc acgcgtggt

29

<210> 14
<211> 32
<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer 100.113.2

<400> 14

acccaagctt gggatgctgg gctgggaggt gg

32

<210> 15

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer 100.126.3

<400> 15

acgaggggta cccaccggtg ccgcatgtgc tccctggcc

39

<210> 16

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer 100.126.1

<400> 16

agacccaagc ttgggaccgg tatgctgggc tgggaggtgg

40

<210> 17

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer 100.126.2

<400> 17

acgaggggta cccaccggtc cccctcctg gcctgagg

38

<210> 18

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer 100.82.1

<400> 18

aggggtaccc cggccggtca cacagcagga gagacac

37

<210> 19

<211> 41

<212> DNA

<213> Artificial Sequence

<220>
<223> PCR Primer 100.82.2

<400> 19
acccaagctt gggcgccgc atcctgggac acatgagcag g

41

<210> 20
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 100.83.1

<400> 20
agggtgacct cggccgcaac cctgccttcg aggttc

36

<210> 21
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 96.74.2

<400> 21
gacgtcgact aattccggtt attttcca

28

<210> 22
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 96.74.1

<400> 22
gacgtcgaca tcgtgttttt caaaggaa

28

<210> 23
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 127.2.1

<400> 23
aggaccggtc actatagggc acgcgtggt

29

<210> 24
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 127.2.2

<400> 24
aggaccggtg ggatgctggg ctgggaggtg g

31

<210> 25
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 96.74.3

<400> 25
cctgagacgc ccgacatcac ctgtg

25

<210> 26
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 96.74.4

<400> 26
tgctgaatgg tcgacatgga ggcttgggag

30

<210> 27
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 96.74.5

<400> 27
cacaaccgct ctccacagat gcatg

25

<210> 28
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 96.74.6

<400> 28
gtcgaccatt cagcaaacaaggcggttaac

30

<210> 29
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 127.50.1

<400> 29

aggaccggtc aggcttcacc ccagacccac

30

<210> 30

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer 31.166.1

<400> 30

tgcgccggtg tacacaggaa gtga

24

<210> 31

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer 32.32.1

<400> 31

gagtttgtgc catcggtcta c

21

<210> 32

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer 32.32.2

<400> 32

aatcaatcct tagtcctcct g

21

<210> 33

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer 51.176

<400> 33

gcagaaaaat cttccaaaca ctccc

25

<210> 34

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer 99.120.1

<400> 34

acgtacaccg gtcgttacat aacttac

27

<210> 35
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 99.120.2

<400> 35
ctagcaaccg gtcggttcac taaacg

26

<210> 36
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 37.124.1

<400> 36
gccttaatta aaagcaaacc tcacctccg

29

<210> 37
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 37.146.1

<400> 37
gtggaacaaa aggtgattaa aaaatcccag

30

<210> 38
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 37.124.3

<400> 38
caccttttgt tccaccgctc tgcttattac

30

<210> 39
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 37.124.4

<400> 39
ggcttaatta actgtgaaag gtgggagc

28

<210> 40
<211> 23

<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 33.81.1

<400> 40
gcagctcact taagttcatg tcg

23

<210> 41
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer 33.81.2

<400> 41
tcagcctagg aaatatgact acgtccg

27

<210> 42
<211> 519
<212> DNA
<213> Artificial Sequence

<220>
<223> IRES from EMCV

<400> 42
gacgtcgact aattccggtt atttccacc atattgccgt cttttggcaa tgtgagggcc 60
cggaacacgt gccctgtctt cttgacgagc attcctaggg gtctttccc tctcgccaaa 120
ggaatgcaag gtctgttgaa tgcgtgaag gaagcagttc ctctggaagc ttcttgaaga 180
caaacaacgt ctgtagcgac cctttgcagg cagcggaaac ccccacctgg cgacaggtgc 240
ctctgcggcc aaaagccacg tgtataagat acacctgcaa aggcggcaca accccagtgc 300
cacgttgtga gttggatagt tgtggaaga gtcaaatggc tctcctcaag cgtattcaac 360
aaggggtga aggatgccca gaaggtaccc cattgtatgg gatctgatct ggggcctcgg 420
tgcacatgct ttacatgtgt ttagtcgagg ttaaaaaacg tctaggcccc ccgaaccacg 480
gggacgtggt ttctcttga aaaacacgat gtcgacgtc 519

<210> 43
<211> 188
<212> DNA
<213> Artificial Sequence

<220>
<223> IRES from VEGF

<400> 43
acgtagtga cagcgcagag gcttggggca gccgagcggc agccaggccc cggcccgggc 60
ctcggttcca gaaggagag gagcccgcca aggcgcgcaa gagagcgggc tgctcgcag 120
tccgagccgg agagggagcg cgagccgcgc cggccccgga cggcctccga aaccatggtc 180
gacacgta 188

<210> 44
<211> 341
<212> DNA
<213> Artificial Sequence

<220>

<223> 5' UTR region of HCV

<400> 44

gccagccccc	tgatgggggc	gacactccgc	catgaatcac	tcccctgtga	ggaactactg	60
tcttcacgca	gaaagcgtct	agccatggcg	ttagtatgag	tgctcgtgcag	cctccaggac	120
ccccctccc	gggagagcca	tagtgggtctg	cggaaccggt	gagtacaccg	gaattgccag	180
gacgaccggg	tcctttcttg	gattaacccg	ctcaatgcct	ggagatttgg	gcgtgcccc	240
gcaagactgc	tagccgagta	gtgttgggtc	gcgaaaggcc	ttgtggtact	gcctgatagg	300
gtgcttgcca	gtgccccggg	aggtctcgta	gaccgtgcac	c		341

<210> 45

<211> 595

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' UTR region of BiP

<400> 45

cccgggggtca	ctcctgctgg	acctactccg	accccctagg	ccgggagtga	aggcgggact	60
tgtgcgggtta	ccagcggaaa	tgcctcgggg	tcagaagtcg	caggagagat	agacagctgc	120
tgaaccaatg	ggaccagcgg	atggggcgga	tggtatctac	cattggtgaa	cgtagaaac	180
gaatagcagc	caatgaatca	gctggggggg	cggagcagtg	acgtttattg	cggagggggc	240
cgcttcgaat	cggcggcggc	cagcttggtg	gcctgggcca	atgaacggcc	tccaacgagc	300
agggccttca	ccaatcgggc	gcctccacga	cggggctggg	ggagggtata	taagccgagt	360
aggcgacggt	gaggtcgacg	ccggccaaga	cagcacagac	agattgacct	attggggtgt	420
ttcgcgagtg	tgagagggaa	gcgcgcggcg	ctgtatttct	agacctgccc	ttcgcttggt	480
tcgtggcgcc	ttgtgacccc	gggcccctgc	cgccctgcaag	tcgaaattgc	gctgtgctcc	540
tgtgctacgg	cctgtggctg	gactgcctgc	tgtgtcccaa	ctggctggca	agatg	595

<210> 46

<211> 575

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' UTR region of PDGF

<400> 46

gtttgcacct	ctccctgccc	gggtgctcga	gctgcggttg	caaagccaac	tttgaaaaa	60
gttttttggg	ggagacttgg	gccttgaggt	gccagctcc	gcgctttccg	attttggggg	120
ctttccagaa	aatgttgcaa	aaaagctaag	ccggcgggca	gaggaaaacg	cctgtagccg	180
gcgagtgaag	acgaaccatc	gactgccgtg	ttccttttcc	tcttgagggt	tggagtcccc	240
tgggcgcccc	cacacccta	gacgcctcgg	ctggttcgag	acgcagcccc	ccggccgtgg	300
atgctgcact	cgggctcggg	atccgcccag	gtagccggcc	tcggacccag	gtcctgcgcc	360
caggtectcc	cctgcccccc	agcgacggag	ccggggccgg	gggcggcgcc	gccgggggca	420
tgccgggtgag	ccgcggctgc	agaggcctga	gcgcctgac	gccgcggacc	tgagccgagc	480
ccacccccct	ccccagcccc	ccaccctggc	cgcgggggcg	gcgcgctcga	tctacgcgtc	540
cggggccccg	cggggccggg	cccggagtcg	gcatg			575